

**SPECIAL PROVISIONS
FOR THE
2012 SANITARY MANHOLE, SEWER STRUCTURES AND CITY
UNDERGROUND CONDUIT (CUC) MANHOLE INSPECTION
CONTRACT**

PART 1 – GENERAL

1. STANDARD SPECIAL PROVISIONS, PLAN FILE NUMBER 52-4-51, DATED AUGUST 22, 2011 OR LATEST REVISION THEREOF, IS PART OF THIS CONTRACT.
2. SEWER STRUCTURES INSPECTION SHALL CONSIST OF THE INSPECTION OF ALL STORM MANHOLES, STORM CATCHBASINS AND INLETS, COMBINED MANHOLES AND SANITARY MANHOLES WITHIN A DESIGNATED PAVING LIMIT AS DIRECTED BY ENVIRONMENTAL ENGINEERING SECTION (EES).
3. PRIOR TO INITIATING ANY SEWER MANHOLE OR BASIN INSPECTION WORK, THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE ENVIRONMENTAL ENGINEERING SECTION TO DISCUSS THE PROPOSED WORK AND WORK SCHEDULE. AT THIS MEETING THE CONTRACTOR SHALL PROVIDE AN INITIAL WORK SCHEDULE FOR THE FIELD WORK ON THIS CONTRACT. CONTACT MR. SOLOMON BEKELE OF THE EES AT (414) 286-0507 TO ARRANGE THE MEETING.
4. SEPARATE INVOICES FOR SANITARY MANHOLE INSPECTION AND FOR SEWER STRUCTURES INSPECTION SHALL BE SUBMITTED. SANITARY MANHOLE INSPECTION INVOICES SHALL BE SUBMITTED TO MR. SOLOMON BEKELE (286-0507) AND SEWER STRUCTURES INSPECTION INVOICES SHALL BE SUBMITTED TO MR. JOSHUA RADOMSKI (286-0506) OF EES AND SHALL INCLUDE ONLY WORK PERFORMED ON THE SEWER STRUCTURES INSPECTION PORTIONS OF THE CONTRACT. SEE THE CITY UNDERGROUND CONDUIT (CUC) MANHOLE INSPECTION SECTION OF THE SPECIAL PROVISIONS FOR INFORMATION REGARDING CUC MANHOLE INSPECTION INVOICES.
5. THE INFORMATION PRESENTED ON THE PLANS IS BASED ON THE BEST AVAILABLE INFORMATION FROM THE CITY. NO FIELD SURVEY WORK WAS PERFORMED BY THE CITY IN PREPARATION FOR THIS CONTRACT PRIOR TO BIDDING. THE CONTRACTOR IS RESPONSIBLE FOR BECOMING FAMILIAR WITH THE PROPOSED SITE CONDITIONS FOR ACCESSIBILITY, TRAFFIC CONDITIONS, MANHOLE LOCATIONS, ETC.
6. THE CONTRACTOR WILL ONLY BE PAID FOR ONE INSPECTION PER STRUCTURE (MANHOLE OR INLET/CATCH BASIN). IF A MANHOLE IS LISTED FOR INSPECTION IN BOTH THE SEWER STRUCTURES INSPECTION LIST AND SANITARY MANHOLE INSPECTION DATABASE, THE CONTRACTOR SHALL PERFORM THE REQUIREMENTS OF BOTH INSPECTIONS, BUT SHALL BE PAID ONCE AT UNIT PRICE BID FOR SANITARY MANHOLE INSPECTION.

7. THE CITY RESERVES THE RIGHT, AT THE DISCRETION OF THE COMMISSIONER OF PUBLIC WORKS, TO INCREASE OR DECREASE THE NUMBER OF SANITARY MANHOLES OR SEWER STRUCTURES TO BE INSPECTED. THE NUMBER OF SANITARY MANHOLES OR SEWER STRUCTURES TO BE INSPECTED MAY BE INCREASED OR DECREASED CONTINGENT UPON THE AVAILABLE FUNDS OR CHANGING FIELD CONDITIONS. ANY CHANGE IN WORK SHALL NOT RAISE A CLAIM FOR EXTRA WORK AND SHALL BE PAID AT THE UNIT PRICE BID FOR THE RESPECTIVE ITEMS. IF CONDITIONS EXIST AT ANY SEWER MANHOLE OR BASIN THAT REQUIRE IMMEDIATE ATTENTION, OR COULD BE CONSIDERED A HAZARD TO PUBLIC SAFETY, INCLUDING, BUT NOT LIMITED TO, BROKEN OR MISSING LIDS OR GRATES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE EES. THE CONTRACTOR SHALL NOT LEAVE THE SITE UNTIL A CITY REPRESENTATIVE IS PRESENT AND HAS TAKEN CONTROL OF THE SITE.
8. IF ANY INSPECTION EQUIPMENT BECOMES LODGED IN THE SEWER OR APPURTENANT STRUCTURES, IT SHALL BE REMOVED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL COSTS FOR ANY DIG UP AND/OR REPAIRS OF THE SEWER AND/OR MANHOLE OR BASIN, BACKFILLING AND SITE RESTORATION.
9. THE CONTRACTOR SHALL KEEP DEBRIS FROM ENTERING THE SEWER SYSTEM AS A DIRECT RESULT OF THE WORK AND WORK PRACTICES UNDER THIS CONTRACT. THE CONTRACTOR SHALL REMOVE ANY MATERIAL AND EQUIPMENT THAT ENTERS THE MANHOLE, BASIN OR SEWER STEMMING FROM THE INSPECTION WORK.
10. IN GENERAL, THE CONTRACTOR SHALL MINIMIZE THE TRAFFIC IMPACT DURING INSPECTION WORK. ALL TRAFFIC CONTROL MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART VI - TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND EMERGENCY OPERATIONS" AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION. NO EQUIPMENT OR MATERIALS SHALL BE STORED IN THE PUBLIC RIGHT-OF-WAY DURING NON-WORKING PERIODS.
11. DURING ALL WORKING PERIODS, THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC ACCESS. PLEASE CONTACT MR. JAMES BROWN AT (414) 286-3276 IF THERE ARE ANY QUESTIONS RELATED TO TRAFFIC CONTROL.
12. THE CONTRACTOR SHALL CONTACT OWNERS/RESIDENTS AND BUSINESSES WITHIN THE PROJECT LIMITS, AS NEEDED, TO INFORM THEM OF THE PROJECT AND PROVIDE THEM WITH ANY INFORMATION DEEMED NECESSARY TO GAIN ACCESS AND/OR PERMISSION FOR THE SUCCESSFUL PERFORMANCE AND COMPLETION OF THE CONTRACT.

PART 1 – SECTION A – SANITARY MANHOLE INSPECTION

13. THE PURPOSE OF THE SANITARY MANHOLE INSPECTION PORTION OF THIS CONTRACT IS TO INSPECT 4,345 SANITARY MANHOLES TO DETERMINE THE STRUCTURAL INTEGRITY AND INFILTRATION SOURCES IN THESE MANHOLES. THE LIST OF SANITARY MANHOLES TO BE INSPECTED AND ALL INSPECTION CRITERIA ARE INCLUDED ON A COMPACT DISC (CD) IN MICROSOFT ACCESS 2002 FORMAT; THE CD IS PART OF THIS CONTRACT AND WILL BE SUPPLIED TO THE CONTRACTOR PRIOR TO THE START OF WORK.
14. TIME OF COMPLETION: THE CONTRACTOR SHALL SUBMIT APPROXIMATELY 50% OF THE INSPECTION RESULTS OF THE SANITARY MANHOLES BY JUNE 1, 2012. ALL WORK SHALL BE COMPLETED BY SEPTEMBER 28, 2012. ALL SANITARY MANHOLE INSPECTION DATA SHALL BE SUBMITTED IN ACCESS 2002 FORMAT BY FILLING OUT THE SUPPLIED BLANK DATABASE.
15. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO LOCATE AND INSPECT EACH AND ALL STRUCTURES THAT ARE PART OF THE SANITARY MANHOLE INSPECTION PORTION OF THE CONTRACT. THE CONTRACTOR SHALL, FOR EACH STRUCTURE NOT LOCATED, SUBMIT WRITTEN DOCUMENTATION OF THE CONTRACTOR'S SEARCH EFFORTS AND A SKETCH OR PHOTOGRAPH OF THE LOCATION SEARCHED. CITY FORCES WILL MAKE AN EFFORT TO LOCATE ANY STRUCTURES THAT THE CONTRACTOR WAS NOT ABLE TO LOCATE. IF CITY FORCES LOCATE THOSE STRUCTURES, THE CONTRACTOR SHALL THEN PERFORM THE INSPECTION AT NO EXTRA PAYMENT WHATSOEVER. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SANITARY MANHOLE INSPECTION.
16. THE CONTRACTOR SHALL OPEN EVERY SANITARY MANHOLE SPECIFICALLY LOOKING FOR STRUCTURAL DEFECTS AND SIGNS OF INFILTRATION AND INFLOW, INCLUDING STAINS, DEPOSITS, HOLES, CRACKS, HIGH WATER MARKS, ETC. AND INSPECT ALL SECTIONS OF THE SANITARY MANHOLE INCLUDING THE LID, FRAME, CHIMNEY, CORBEL, BARREL AND BENCH (SEE MANHOLE DETAIL ON PLAN FILE 228-88) IN SUFFICIENT DETAIL TO BE ABLE TO COMPLETELY AND ACCURATELY FILL OUT THE DATA TABLE IN THE DATABASE FOR EACH SANITARY MANHOLE.
17. THE CONTRACTOR SHALL PROVIDE THE CITY WITH A MINIMUM OF THREE DIGITAL PHOTOS AND A MAXIMUM OF SIX DIGITAL PHOTOS PER SANITARY MANHOLE INSPECTION. THE CONTRACTOR SHALL PROVIDE EACH INSPECTION CREW WITH A DIGITAL CAMERA EQUIPPED WITH A MEMORY CARD WHICH HAS A MINIMUM CAPACITY OF ONE GIGABYTE TO TAKE THE REQUIRED MANHOLE PICTURES. THE DIGITAL CAMERA SHALL BE A NEW CANON – POWERSHOT ELPH 300 HS 12.1-MEGAPIXEL DIGITAL CAMERA (WITH LI-ION RECHARGEABLE BATTERY). **THE CAMERA SHALL BE ABLE TO STAMP DATE AND TIME ON THE PHOTOS.** UPON COMPLETION OF THE WORK, THE CAMERAS (MINIMUM OF TWO) SHALL BECOME THE PROPERTY OF THE CITY OF MILWAUKEE EES AND SHALL BE TURNED IN TO MR. TIMOTHY THUR (286-2463) IN THEIR ORIGINAL PACKAGING,

ALONG WITH THE ONE GIGABYTE MEMORY CARDS, CABLES AND MANUALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE SURE THE CAMERAS ARE KEPT CLEAN AND IN GOOD WORKING ORDER THROUGHOUT THE LIFE OF THIS CONTRACT. THE CAMERAS AND THE MEMORY CARDS SHALL BE RETURNED TO THE CITY IN LIKE-NEW CONDITION AND IN WORKING ORDER. THE COST OF THE DIGITAL CAMERAS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SANITARY MANHOLE INSPECTION.

THE FIRST PHOTO SHALL SHOW THE CURRENT CONDITION OF THE IMMEDIATE AREA AROUND THE MANHOLE. THE PICTURES SHALL BE FREE OF OBSTRUCTIONS AND SHALL CLEARLY SHOW THE LID INCLUDING ALL PICK HOLES AND VENT HOLES. THE SECOND PHOTO SHALL SHOW THE INTERIOR OF THE MANHOLE DURING THE TIME OF THE INSPECTION. THE THIRD PHOTO SHALL SHOW THE CHIMNEY WITH A MEASURING TAPE LINED UP AGAINST THE CHIMNEY WALL SHOWING THE HEIGHT OF THE CHIMNEY. **ADDITIONAL PHOTOS ARE REQUIRED IF ANY SECTION OF THE MANHOLE IS IDENTIFIED AS POOR OR IN NEED OF REPAIR. ADDITIONAL PHOTOS SHALL BE TAKEN OF ANY DISTINGUISHING DEFECTS IN OR AROUND THE MANHOLE DURING THE TIME OF THE INSPECTION.**

MANHOLE PHOTOGRAPHS SHALL BE TAKEN AT THE TIME OF A MANHOLE'S INSPECTION. THE CONTRACTOR SHALL ENTER THE PHOTOGRAPH NUMBER AS RECORDED BY THE CAMERA'S MEMORY CARD ON THE ELECTRONIC ACCESS 2002 DATABASE. THE CONTRACTOR SHALL RENAME THE PHOTO FILE NAMES AS (OR SIMILAR TO) "**SYSTEMNUMBER.MHNUMBER-X.JPG**" ("X" REPRESENTS LETTERS OR NUMBERS FOR ADDITIONAL PICTURE PER MANHOLE) AND SHALL KEEP THE NAMES UNIQUE AND SEQUENTIAL THROUGHOUT THE COURSE OF THE CONTRACT. ALL PHOTOS SHALL BE SUBMITTED ON DVD ROM. ALL PHOTOGRAPHS TAKEN SHALL BE ENTERED IN THE DATABASE IN A WAY THAT WILL ALLOW FOR PROPER LINKAGE WITH THE PHOTOGRAPH'S FILES ONCE UPLOADED TO A COMPUTER.

18. THE DATABASE AND PICTURES FOR SANITARY MANHOLE INSPECTION SHALL BE KEPT SEPARATE FROM ANY INFORMATION SUBMITTED AS PART OF THE CUC MANHOLE INSPECTION AND THE SEWER STRUCTURES INSPECTION PORTION OF THE CONTRACT.
19. THE CONTRACTOR SHALL PERFORM A DATA ENTRY QUALITY CONTROL CHECK TO ENSURE THE VALIDITY OF THE ENTERED DATA PRIOR TO SUBMITTAL TO THE CITY. FOR CONVENIENCE, A DATA ENTRY FORM CALLED "FORM: MH INSPECTION DATA" HAS BEEN CREATED IN THE FORMS SECTION OF THE DATABASE. THE "ENTERED BY" AND "CHECKED BY" FIELDS IN THE DATABASE MUST BE COMPLETED. THE FOLLOWING PERTAIN TO THE DATABASE ENTRY FORM:

LID/COVER

- INDICATE THE NUMBER OF THROUGH VENT HOLES IN EACH LID. EVEN IF THE HOLES APPEAR TO BE PLUGGED, INCLUDE THOSE HOLES IN THE COUNT.

- UNDER “ADJUSTING RING CONDITION”, IF CONDITION IS “BAD”, CLEARLY DESCRIBE ANY DEFECTS IN ADJUSTMENT RINGS IN THE REMARKS SECTION. DEFECTS COULD INCLUDE CRACKS, WEARS, ETC.

FRAME

- VERIFY THAT FRAME DIAMETER IS MEASURED FROM INSIDE TO INSIDE OF FRAME.
- SEE PLAN FILE NO. 228-88 FOR DETAIL OF VERTICAL SLOT ROWS AND WIDTH OF SLOTS ON INTERNAL SEAL BAND.

CHIMNEY

- IF THERE IS NO CHIMNEY IN THE MANHOLE, ENTER “0” FOR CHIMNEY HEIGHT IN THE DATABASE FORM PROVIDED.
- CHIMNEY HEIGHT MEASUREMENT SHALL BE FROM THE BOTTOM OF THE FRAME TO THE BOTTOM OF THE CHIMNEY. (SEE PLAN FILE NO. 228-88 FOR MANHOLE DETAIL). IF THE MANHOLE HAS A SEAL COVERING THE CHIMNEY/FRAME JOINT, THE CONTRACTOR SHALL USE HIS BEST POSSIBLE ESTIMATE TO LOCATE THE BOTTOM OF THE FRAME.

PART 1 SECTION B – SEWER STRUCTURES INSPECTION

20. THE PURPOSE OF THE SEWER STRUCTURES INSPECTION IS TO DOCUMENT THE STRUCTURAL CONDITION OF ALL SEWER STRUCTURES, AS DEFINED IN THE GENERAL SECTION OF THE PROVISIONS THAT MAY BE IMPACTED BY PAVING PROJECTS. THE CONTRACTOR SHALL INSPECT AND PROVIDE FIELD DOCUMENTATION FOR APPROXIMATELY 3,000 SEWER STRUCTURES. THE SEWER STRUCTURE INSPECTION REQUEST WILL BE ON AN AS NEEDED BASIS AND AS DETERMINED BY THE CITY OF MILWAUKEE CONSTRUCTION SECTION. INSPECTION PLANS FOR THIS WORK WILL BE MADE AVAILABLE AS PRIORITIES OF PAVING PROJECTS ARE ESTABLISHED. THE CONTRACTOR SHALL PICK UP COPIES OF THE SITE PLAN(S) WITHIN THREE BUSINESS DAYS OF THE REQUEST TO INSPECT. ALL INSPECTION PLANS CAN BE PICKED UP FROM MR. JOSHUA RADOMSKI OF EES IN ROOM 821, 841 N. BROADWAY, MILWAUKEE, WI 53202.
21. THE CONTRACTOR SHALL SUBMIT THE INSPECTION RESULTS WITHIN 15 (FIFTEEN) BUSINESS DAYS OF RECEIVING THE PLANS OR WITHIN THE TIME FRAME SPECIFIED AT THE TIME OF PICK-UP. THIS INSPECTION WORK SHALL BE EXECUTED ON AN AS-NEEDED BASES AND ALL WORK SHALL BE COMPLETED BY DECEMBER 26, 2012
22. THE CONTRACTOR SHALL RECORD FIELD INSPECTION DATA FOR THE SEWER STRUCTURES ON THE SITE PLAN(S) PROVIDED. ANY SUPPORTING DOCUMENTATION (PICTURES, ADDITIONAL DESCRIPTIONS) SHALL BE ATTACHED TO THE SITE PLAN PROVIDED AND REFERENCED TO THE PARTICULAR STRUCTURE. ANY CHANGES TO THIS DOCUMENTING ARRANGEMENT MUST BE APPROVED BY EES. THE CONTRACTOR SHALL OPEN EVERY SEWER STRUCTURE SHOWN ON THE SITEPLAN(S) UNLESS OTHERWISE DIRECTED BY EES. THE

CONTRACTOR SHALL LOOK FOR STRUCTURAL DEFECTS AND CONDITIONS THAT NEED TO BE ADDRESSED PRIOR TO ANY PAVING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND INSPECT ALL SEWER STRUCTURES. IF THE CONTRACTOR CANNOT OPEN THE STRUCTURE, THE CONTRACTOR SHALL NOTE THIS ON THE PLANS AND NO PAYMENT WILL BE MADE FOR THE INSPECTION OF THE STRUCTURE. INVOICES FOR THE SEWER STRUCTURES INSPECTION SHALL BE SUBMITTED TO MR. JOSHUA RADOMSKI OF THE ENVIRONMENTAL ENGINEERING SECTION (EES) OF THE CITY OF MILWAUKEE AND SHALL INCLUDE ONLY WORK PERFORMED ON SEWER STRUCTURES INSPECTION PORTION OF THE CONTRACT.

23. THE INFORMATION PRESENTED ON THE PROVIDED SITE PLAN(S) IS BASED ON THE BEST AVAILABLE INFORMATION FROM THE CITY. NO FIELD SURVEY WORK WAS PERFORMED BY THE CITY IN PREPARATION FOR THIS CONTRACT PRIOR TO BIDDING.
24. IF THE CONTRACTOR LOCATES STRUCTURES THAT ARE NOT SHOWN ON THE PLAN(S) THE CONTRACTOR SHALL INSPECT AND MAKE NOTE OF THAT STRUCTURE AS IF IT WAS PART OF THE CONTRACT AND SHALL BE PAID AT THE UNIT PRICE BID FOR PAVING RELATED STRUCTURES. THE CONTRACTOR SHALL PROVIDE THE CITY WITH A MINIMUM OF TWO DIGITAL PHOTOS AND A MAXIMUM OF FOUR DIGITAL PHOTOS OF ALL SEWER STRUCTURES DEEMED TO REQUIRE ANY REPAIR OR REPLACEMENT WORK. THE PHOTOS SHALL BE ATTACHED TO THE RESPECTIVE SITE PLAN(S) AND SHALL CLEARLY IDENTIFY THE STRUCTURE AND ITS LOCATION.

PHOTOS ARE REQUIRED IF ANY SECTION OF THE RESPECTIVE SEWER STRUCTURE IS IDENTIFIED AS POOR CONDITION, IN NEED OF REPAIR, OR REPLACEMENT. ADDITIONAL PHOTOS SHALL BE TAKEN OF ANY DISTINGUISHING DEFECTS IN OR AROUND THE SEWER STRUCTURE DURING THE TIME OF THE INSPECTION.

25. THE FOLLOWING PERTAIN TO THE SEWER STRUCTURES INSPECTION

LID/COVER/FRAME

- CONDITION, IF ANY OF THE ITEMS ARE DAMAGE OR MISSING.
- UNDER "ADJUSTING RING CONDITION", IF CONDITION IS "BAD", CLEARLY DESCRIBE ANY DEFECTS IN ADJUSTMENT RINGS IN THE REMARKS SECTION. DEFECTS COULD INCLUDE CRACKS, WEARS, ETC.

REPAIR AND REPLACEMENT WORK

- SPECIFY THE AMOUNT OF REPAIR WORK NECESSARY IN EACH MANHOLE. THE REPAIR WORK SHALL BE SPECIFIED IN INCHES AND APPROXIMATED TO THE NEAREST QUARTER FOOT. (3", 6", 9", 12").
- SPECIFY AND DOCUMENT DEFECTS AND OTHER ISSUES THAT WOULD WARRANT THE REPLACEMENT OF ANY SEWER STRUCTURE INSPECTED ON THIS CONTRACT.

SUMP (ONLY FOR INLETS AND CATCH BASINS)

- SPECIFY WHETHER THE EXISTING INLET IS “BOWL-TYPE” OR IF THE INLET HAS A SUMP ON EACH INLET OR CATCH BASIN. THE CONTRACTOR SHALL MAKE EVERY REASONABLE EFFORT TO CLEAR THE INLET GRATE OF DEBRIS TO DETERMINE WHETHER THE INLET HAS A SUMP OR IS BOWL TYPE.
 - CHIMNEY HEIGHT MEASUREMENT SHALL BE FROM THE BOTTOM OF THE FRAME TO THE BOTTOM OF THE CHIMNEY. IF THE MANHOLE HAS A SEAL COVERING THE CHIMNEY/FRAME JOINT, THE CONTRACTOR SHALL USE HIS BEST POSSIBLE ESTIMATE TO LOCATE THE BOTTOM OF THE FRAME.
26. THE CONTRACTOR WILL BE PAID FOR SEWER STRUCTURE INSPECTION BASED ON THE UNIT PRICE BID FOR THE RESPECTIVE ITEM.

PART 2 – CITY UNDERGROUND CONDUIT MANHOLE INSPECTION

1. STANDARD SPECIAL PROVISIONS, PLAN FILE NUMBER 52-4-51, DATED AUGUST 22, 2011 OR LATEST REVISION THEREOF, IS PART OF THIS CONTRACT.
2. THE PURPOSE OF THIS CONTRACT IS TO INSPECT APPROXIMATELY 350 CUC MANHOLES TO DETERMINE THE STRUCTURAL INTEGRITY OF THESE MANHOLES. A LIST OF APPROXIMATELY 200 CUC MANHOLES TO BE INSPECTED AND ALL INSPECTION CRITERIA ARE INCLUDED ON A COMPACT DISC (CD) IN MICROSOFT ACCESS 2000 FORMAT; THE CD IS PART OF THIS CONTRACT AND WILL BE SUPPLIED TO THE CONTRACTOR PRIOR TO THE START OF WORK.
3. TIME OF COMPLETION: THE CONTRACTOR SHALL SUBMIT 100% OF THE INSPECTION RESULTS OF THE APPROXIMATE 200 MANHOLES ON THE LIST SUPPLIED TO THE CONTRACTOR AT THE START OF THIS CONTRACT BY MAY, 31 2012. LISTS OF ADDITIONAL MANHOLES TO BE INSPECTED FOR THE CITY'S PAVING PROGRAM WILL BE SUBMITTED PERIODICALLY DURING THE COURSE OF THE CONTRACT. IT IS ANTICIPATED THAT APPROXIMATELY 100 ADDITIONAL MANHOLES WILL NEED TO BE INSPECTED. ALL MANHOLE INSPECTION DATA SHALL BE SUBMITTED IN ACCESS 2002 FORMAT BY FILLING OUT THE SUPPLIED BLANK DATABASE WITHIN THREE WEEKS OF THE DATE THE LIST IS DELIVERED TO THE CONTRACTOR. THE SUBMITTAL SHALL ALSO CONTAIN A BUTTERFLY DRAWING THAT IS CLEAN AND LEGIBLE FOR EACH CUC MANHOLE STRUCTURE.

IN ADDITION TO THE ABOVE MENTIONED PROGRAMMED CUC MANHOLES, THE CONTRACT WILL INCLUDE INSPECTION OF APPROXIMATELY 50 CUC MANHOLES ON AN EMERGENCY BASIS. ALL INSPECTION CRITERIA WILL BE INCLUDED ON A COMPACT DISK IN MICROSOFT ACCESS 2000 FORMAT FOR EACH LOCATION. THE CONTRACTOR SHALL PERFORM THIS INSPECTION WITHIN THREE (3) WORKING DAYS FROM RECEIPT OF THE COMPACT DISK PER EACH LOCATION.

ALL WORK IS ANTICIPATED TO BE COMPLETED BY DECEMBER 31, 2012.

4. INVOICES FOR CUC MANHOLE INSPECTION SHALL BE SUBMITTED TO MS. KAREN ROGNEY (414-286-3243) OF THE CITY UNDERGROUND CONDUIT SECTION. THE INVOICES SHALL INCLUDE ONLY WORK PERFORMED ON CUC MANHOLE INSPECTION.
5. CONTRACTOR SHALL OPEN AND ENTER EVERY MANHOLE SPECIFICALLY LOOKING FOR STRUCTURAL DEFECTS INCLUDING SETTLING, BUCKLING, HOLES, CRACKS, WATER LEVELS, ETC. AND INSPECT ALL SECTIONS OF THE CUC MANHOLE INCLUDING THE LID, FRAME, CHIMNEY, CORBEL, ROOF SLAB AND STRUCTURE WALLS IN SUFFICIENT DETAIL TO BE ABLE TO COMPLETELY AND ACCURATELY FILL OUT THE DATA TABLE IN THE DATABASE FOR EACH CUC MANHOLE.
6. CUC MANHOLES CONTAIN LIVE ELECTRICAL AND COMMUNICATIONS CABLES INCLUDING FIBER OPTICS. THE CONTRACTOR WILL FOLLOW ALL OSHA AND

NFPA SAFETY REGULATIONS REGARDING WORKING IN CLOSE SPACES AND WORKING AROUND LIVE CABLES.

7. PRIOR TO ENTERING ELECTRICAL SERVICE MANHOLES, CONTRACTOR IS TO CONTACT EITHER MR. DENNIS MILLER AT (414) 286-5942 OFFICE, (414) 708-4251 CELL OR MR. GEORGE BERDINE AT (414) 286-5943 OFFICE, (414) 708-4245 CELL TO DETERMINE IF THERE ARE ANY LIVE POWER CABLES IN THE MANHOLE. THE CABLES WILL BE DEENERGIZED BY ELECTRICAL SERVICES FIELD PERSONNEL, IF POSSIBLE. ALL ELECTRICAL SERVICE CABLES ARE TO BE CONSIDERED ENERGIZED UNLESS SPECIFICALLY TAGGED AS BEING DEENERGIZED BY ELECTRICAL SERVICES FIELD PERSONNEL.
8. ELECTRICAL SERVICE MANHOLES MAY CONTAIN WE ENERGIES SERVICE CABLES.
9. THE CONTRACTOR SHALL PROVIDE THE CITY WITH A MINIMUM OF SEVEN DIGITAL PHOTOS AND A MAXIMUM OF TWELVE DIGITAL PHOTOS PER MANHOLE INSPECTION. THE CONTRACTOR SHALL PROVIDE EACH INSPECTION CREW WITH A DIGITAL CAMERA EQUIPPED WITH A MEMORY CARD WHICH HAS A MINIMUM CAPACITY OF ONE GIGABYTE TO TAKE THE REQUIRED MANHOLE PICTURES.

THE FIRST PHOTO SHALL SHOW THE CURRENT CONDITION OF THE IMMEDIATE AREA AROUND THE RESPECTIVE MANHOLE DURING THE TIME OF THE INSPECTION. THE PICTURES SHALL BE FREE OF OBSTRUCTIONS AND SHALL CLEARLY SHOW THE LID. THE SECOND PHOTO SHALL SHOW THE INTERIOR OF THE RESPECTIVE MANHOLE DURING THE TIME OF THE INSPECTION. THE THIRD PHOTO SHALL SHOW THE FRAME AND CHIMNEY WITH A MEASURING TAPE LINED UP AGAINST THE CHIMNEY WALL SHOWING THE DEPTH OF THE STRUCTURE FROM THE STRUCTURE FLOOR TO THE TOP OF THE FRAME CASTING. THE NEXT FOUR PHOTOS SHALL BE TAKEN OF THE NORTH, SOUTH, EAST AND WEST WALLS OF THE MANHOLE SHOWING THE CONDUITS ENTERING THE MANHOLE.

ADDITIONAL PHOTOS ARE REQUIRED IF ANY SECTION OF THE MANHOLE IS IDENTIFIED AS POOR OR IN NEED OF REPAIR. ADDITIONAL PHOTOS SHALL BE TAKEN OF ANY DISTINGUISHING DEFECTS IN OR AROUND THE MANHOLE DURING THE TIME OF THE INSPECTION.

MANHOLE PHOTOGRAPHS SHALL BE TAKEN AT THE TIME OF A MANHOLE'S INSPECTION. THE CONTRACTOR SHALL ENTER THE PHOTOGRAPH NUMBER AS RECORDED BY THE CAMERA'S MEMORY CARD ON THE ELECTRONIC ACCESS 2002 DATABASE. THE CONTRACTOR SHALL RENAME THE PHOTO FILE NAMES AS (OR SIMILAR TO) "**MANHOLE ID-X.JPG**" ("X" REPRESENTS LETTERS OR NUMBERS FOR ADDITIONAL PICTURE PER MANHOLE) AND SHALL KEEP THE NAMES UNIQUE AND SEQUENTIAL THROUGHOUT THE COURSE OF THE CONTRACT. ALL PHOTOS SHALL BE SUBMITTED ON DVD ROM. ALL PHOTOGRAPHS TAKEN SHALL BE ENTERED IN THE DATABASE IN A WAY THAT WILL ALLOW FOR PROPER LINKAGE WITH THE PHOTOGRAPH'S FILES ONCE UPLOADED TO A COMPUTER.

10. THE DATABASE, BUTTERFLY DRAWINGS AND PICTURES FOR CUC MANHOLE INSPECTION SHALL BE KEPT SEPARATE FROM THE DATA BASE AND PICTURES

FOR SANITARY MANHOLE INSPECTION AND SEPARATE FROM THE INFORMATION REGARDING SEWER STRUCTURE INSPECTION.

11. THE INFORMATION PRESENTED ON THE PLANS IS BASED ON THE BEST AVAILABLE INFORMATION FROM THE CITY. NO FIELD SURVEY WORK WAS PERFORMED BY THE CITY IN PREPARATION FOR THIS CONTRACT PRIOR TO BIDDING. THE CONTRACTOR IS RESPONSIBLE FOR BECOMING FAMILIAR WITH THE PROPOSED SITE CONDITIONS FOR ACCESSIBILITY, TRAFFIC CONDITIONS, MANHOLE LOCATIONS, ETC.
12. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO LOCATE AND INSPECT EACH AND ALL MANHOLES SHOWN IN THIS CONTRACT. THE CONTRACTOR SHALL, FOR EACH MANHOLE NOT LOCATED, SUBMIT WRITTEN DOCUMENTATION OF THE CONTRACTOR'S SEARCH EFFORTS AND A SKETCH OR PHOTOGRAPH OF THE LOCATION SEARCHED. CITY FORCES WILL MAKE AN EFFORT TO LOCATE ANY MANHOLES THAT THE CONTRACTOR WAS NOT ABLE TO LOCATE. IF THE CITY FORCES LOCATE THOSE MANHOLES, THE CONTRACTOR SHALL THEN PERFORM THE INSPECTION AT NO EXTRA PAYMENT WHATSOEVER. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLE INSPECTION.
13. THE CONTRACTOR SHALL INCLUDE THE COST OF BARRICADING CUC MANHOLES REQUIRED FOR PART 2 OF THE CONTRACT IN THE UNIT PRICE BID FOR ITEM "BARRICADING – CUC MANHOLES".

THE CITY RESERVES THE RIGHT, AT THE DISCRETION OF THE COMMISSIONER OF PUBLIC WORKS, TO INCREASE OR DECREASE THE NUMBER OF MANHOLES TO BE INSPECTED. THE AMOUNT OF MANHOLE INSPECTION WORK MAY BE INCREASED OR DECREASED CONTINGENT UPON THE AVAILABLE FUNDS OR CHANGING FIELD CONDITIONS. ANY CHANGE IN WORK SHALL NOT RAISE A CLAIM FOR EXTRA WORK AND SHALL BE PAID AT THE UNIT PRICE BID FOR MANHOLE INSPECTION.

THE CITY SHALL PAY FOR QUANTITIES AT THE CONTRACT UNIT PRICE UNDER THE FOLLOWING BID ITEMS:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	
	<u>UNIT</u>	
50022	BARRICADING- CUC MANHOLES	LUMP
60020	MANHOLE INSPECTION – CITY UNDERGROUND CONDUIT/COMMUNICATIONS	EACH
60021	MANHOLE INSPECTION – CITY UNDERGROUND CONDUIT/ELECTRICAL	EACH
60022	MANHOLE INSPECTION – CITY UNDERGROUND CONDUIT/EMERGENCY	EACH
60023	DEWATERING MANHOLE	EACH

14. PRIOR TO INITIATING THE CUC MANHOLE INSPECTION WORK, THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE CONDUIT SECTION TO DISCUSS THE

PROPOSED WORK AND WORK SCHEDULE. AT THIS MEETING THE CONTRACTOR SHALL PROVIDE AN INITIAL WORK SCHEDULE FOR THE FIELD WORK ON THIS CONTRACT. CONTACT MS. KAREN ROGNEY OF THE CONDUIT SECTION AT (414) 286-3243 TO ARRANGE THE MEETING.

15. IF CONDITIONS EXIST AT ANY CUC MANHOLE THAT REQUIRES IMMEDIATE ATTENTION OR COULD BE CONSIDERED DANGEROUS TO THE PUBLIC INCLUDING, BUT NOT LIMITED TO, A BROKEN OR MISSING MANHOLE COVER, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY MS. KAREN ROGNEY OF THE CITY UNDERGROUND CONDUIT SECTION AT (414) 286-3243. THE CONTRACTOR SHALL NOT LEAVE THE SITE UNTIL A CITY REPRESENTATIVE IS PRESENT AND HAS TAKEN CONTROL OF THE SITE.
16. IF ANY DAMAGE OCCURS AS A RESULT OF THE INSPECTION OF CUC MANHOLES, IT SHALL BE REPAIRED BY THE CITY AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL COSTS FOR ANY DIG UP AND/OR REPAIRS OF THE MANHOLE, CABLE REPAIR, BACKFILLING AND SITE RESTORATION. CONTRACTOR SHALL CONTACT MS. KAREN ROGNEY AT (414) 286-3243 IMMEDIATELY IF ANY DAMAGE OCCURS.
17. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO KEEP DEBRIS AND WATER FROM ENTERING THE CUC SYSTEM AS A DIRECT RESULT OF THE WORK AND WORK PRACTICES UNDER THIS CONTRACT. THE CONTRACTOR SHALL REMOVE ANY MATERIAL AND EQUIPMENT THAT ENTER THE MANHOLE STEMMING FROM THE MANHOLE INSPECTION WORK.
18. IN GENERAL, THE CONTRACTOR SHALL MINIMIZE THE TRAFFIC IMPACT DURING MANHOLE INSPECTION WORK. ALL TRAFFIC CONTROL MATERIAL AND EQUIPMENT SHALL COMPLY WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART VI - TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND EMERGENCY OPERATIONS" AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION. NO EQUIPMENT OR MATERIALS SHALL BE STORED IN THE PUBLIC RIGHT-OF-WAY DURING NON-WORKING PERIODS.
19. DURING ALL WORKING PERIODS, THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC ACCESS. THE CONTRACTOR IS RESPONSIBLE FOR ADDRESSING THE CONCERNS AND NEEDS OF ANY SCHOOLS OR COUNTY TRANSIT SYSTEM BUS ROUTES AFFECTED BY THIS PROPOSED WORK. PLEASE CONTACT MR. JAMES BROWN AT (414) 286-3276 IF THERE ARE ANY QUESTIONS RELATED TO TRAFFIC CONTROL.
20. THE CONTRACTOR SHALL CONTACT OWNERS/RESIDENTS AND BUSINESSES WITHIN THE PROJECT LIMITS, AS NEEDED, TO INFORM THEM OF THE PROJECT AND PROVIDE THEM WITH ANY INFORMATION DEEMED NECESSARY TO GAIN ACCESS AND/OR PERMISSION FOR THE SUCCESSFUL PERFORMANCE AND COMPLETION OF THE CONTRACT.

21. THE CONTRACTOR SHALL SAVE THE CITY HARMLESS FROM ANY AND ALL DAMAGES THAT MAY ARISE OUT OF THE PERFORMANCE OF THIS CONTRACT IN ACCORDANCE WITH THE CONDITIONS OF THIS CONTRACT.

THE CONTRACTOR SHALL COMPLETE ALL RESPECTIVE COMMUNICATION MANHOLE INSPECTIONS WITHOUT ANY DAMAGE TO THE EXISTING CONDUITS OR SERVICE LINES. ANY FAILURES OR DAMAGE CAUSED BY THE CONTRACT SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY NO-FEE PERMITS FOR THIS PROJECT.
23. THE CONTRACTOR SHALL PERFORM A DATA ENTRY QUALITY CONTROL CHECK TO ENSURE THE VALIDITY OF THE ENTERED DATA PRIOR TO SUBMITTAL TO THE CITY. FOR CONVENIENCE, A DATA ENTRY FORM CALLED "2011 CUC INSPECTION FORM" HAS BEEN CREATED IN THE FORMS SECTION OF THE DATABASE. THE "ENTERED BY" AND "CHECKED BY" FIELDS IN THE DATABASE MUST BE COMPLETED.
24. THE FOLLOWING PERTAIN TO THE DATABASE ENTRY FORM:

LID/COVER

- INDICATE THE TYPE OF LID/COVER BASED ON PLAN FILE DETAIL 6A AND DIAGRAMS 105 AND 105A. ENTER "SMALL ROUND" FOR LID TYPE AS IDENTIFIED ON DIAGRAM 105.
- UNDER "ADJUSTING RING CONDITION", IF CONDITION IS "BAD", CLEARLY DESCRIBE ANY DEFECTS IN ADJUSTMENT RINGS OR BRICK WORK IN THE REMARKS SECTION. DEFECTS COULD INCLUDE CRACKS.

FRAME

- VERIFY THAT FRAME HEIGHT IS MEASURED FROM TOP OF RIM TO BOTTOM OF FRAME.

CHIMNEY

- IF THERE IS NO CHIMNEY IN THE MANHOLE, ENTER "0" FOR CHIMNEY HEIGHT IN THE DATABASE FORM PROVIDED.
- CHIMNEY HEIGHT MEASUREMENT SHALL BE FROM THE BOTTOM OF THE FRAME TO THE TOP OF THE ROOF SLAB.

CORBEL

- IF THERE IS NO CORBEL IN THE MANHOLE, ENTER "0" FOR CORBEL HEIGHT IN THE DATABASE FORM PROVIDED.

ROOF SLAB

- UNDER “DESCRIPTION OF ROOF DEFECT”, IF CONDITION IS “BAD”, CLEARLY DESCRIBE ANY DEFECTS IN ROOF SLAB.
- IF THERE IS NO ROOF SLAB IN THE MANHOLE, ENTER “O” FOR SLAB THICKNESS IN THE DATABASE FORM PROVIDED.
- HEADROOM HEIGHT MEASUREMENT SHALL BE FROM THE STRUCTURE FLOOR TO THE BOTTOM OF THE ROOF SLAB.

STRUCTURE

- UNDER “DESCRIPTION OF DEFECT”, IF CONDITION IS “BAD”, CLEARLY DESCRIBE ANY DEFECTS IN THE STRUCTURE.
- IF WATER IS PRESENT DURING INSPECTION, THE WATER DEPTH MEASUREMENT MAY BE MEASURED FROM THE WATER MARK LEFT ON THE STRUCTURE WALL AFTER ANY DEWATERING.

FLOOR

- IF THE AMOUNT OF DEBRIS IN THE CUC MANHOLE PRECLUDES ANY HEIGHT MEASUREMENTS OR VISUAL EVALUATION OF THE FLOOR CONDITION, CLEARLY DESCRIBE THE STATUS IN THE “REMARKS” ENTRY IN THE DATABASE FORM.

25. THE FOLLOWING PERTAINS TO THE BUTTERFLY DRAWING FORM:

MANHOLE ID NUMBER

- ENTER THE MANHOLE ID NUMBER IN BOX LOCATED ON THE TOP OF THE DRAWING.

NORTH ARROW

- INDICATE NORTH ON THE DRAWING.

STRUCTURE SHAPE

- INDICATE THE SHAPE ON THE STRUCTURE ON THE FORM

DUCT STACKS

- DRAW EACH DUCT STACK IN THE CONFIGURATION AND AT THE LOCATION THAT THEY ENTER THE MANHOLE.
- DRAW A LINE UNDER THE DUCT STACKS TO INDICATE THE DUCTS LOCATED CLOSEST TO THE BOTTOM OF THE MANHOLE.
- ON CIRCULAR MANHOLES INDICATE THE APPROXIMATE ANGLE AT WHICH THE DUCTS ENTER THE MANHOLE.

- ON SQUARE AND RECTANGULAR MANHOLES INDICATE THE DISTANCE FROM THE NEAREST WALL TO THE CENTER OF THE DUCT STACK.
 - INDICATE THE DISTANCE FROM THE FLOOR OF THE MANHOLE TO THE BOTTOM OF EACH DUCT STACK.
 - INDICATE THE SIZE AND THE MATERIAL OF EACH DUCT ENTERING THE MANHOLE. TYPES OF DUCTS MOST COMMONLY USED: IRON PIPE, CLAY TILE, FIBER DUCT AND PVC.
26. AN EXAMPLE OF THE 2011 CUC INSPECTION FORM AS WELL AS EXAMPLES OF BUTTERFLY DRAWINGS HAVE BEEN INCLUDED FOR INFORMATIONAL PURPOSES.
27. CONTRACTOR WILL BE PAID FOR ALL MANHOLES THAT REQUIRE DEWATERING WHEN MORE THAN 6 INCHES OF WATER IS IN THE MANHOLE. DEWATERING WILL BE DONE IN ACCORDANCE WITH CITY OF MILWAUKEE GUIDELINES.